

10/691,328

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	69	(564/322).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/04/06 16:24
L2	521	(564/441).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2006/04/06 16:24

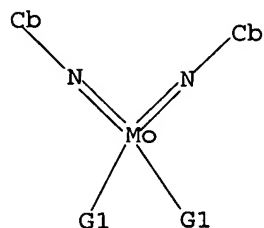
10/691,328

(FILE 'HOME' ENTERED AT 13:11:27 ON 06 APR 2006)

FILE 'REGISTRY' ENTERED AT 13:11:38 ON 06 APR 2006

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 X, Cb, Hy, Ak

Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 13:12:01 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1675 TO ITERATE

100.0% PROCESSED 1675 ITERATIONS 6 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 31045 TO 35955
PROJECTED ANSWERS: 6 TO 266

L2 6 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 13:12:05 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 33006 TO ITERATE

100.0% PROCESSED 33006 ITERATIONS 56 ANSWERS
SEARCH TIME: 00.00.01

L3 56 SEA SSS FUL L1

=> fil caplus
COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 166.94 167.15

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=> s 13

L4 35 L3

=> d 1-35 bib abs

L4 ANSWER 1 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1245641 CAPLUS
DN 144:129067
TI Synthesis and some properties of 14 group element-containing alkylidene complexes of molybdenum and tungsten
AU Bochkarev, Leonid N.; Begantsova, Yulia E.; Shcherbakov, Vladislav I.; Stolyarova, Natalia E.; Grigorieva, Irina K.; Malysheva, Irina P.; Basova, Galina V.; Bochkarev, Andrey L.; Barinova, Yulia P.; Fukin, Georgii K.; Baranov, Evgenii V.; Kurskii, Yurii A.; Abakumov, Gleb A.
CS G.A. Razuvaev Institute of Organometallic Chemistry, Russian Academy of Sciences, Nizhny Novgorod, 603950, Russia
SO Journal of Organometallic Chemistry (2005), 690(24-25), 5720-5727
CODEN: JORCAI; ISSN: 0022-328X
PB Elsevier B.V.
DT Journal
LA English
OS CASREACT 144:129067
AB Molybdenum alkylidene complex $\text{Ph}_3\text{SiCH:Mo}(\text{NAr})(\text{OCMe}_2\text{CF}_3)_2$ (1, Ar = 2,6-Pri₂C₆H₃) was prepared by the reaction of $\text{Ph}_3\text{SiCH:CH}_2$ with known alkylidene compds. $\text{Alkyl-CH:Mo}(\text{NAr})(\text{OCMe}_2\text{CF}_3)_2$ (Alkyl = But, PhMe₂C). According to x-ray diffraction studies the geometry of the Mo atom in 1 can be described as a distorted tetrahedron. Reactions of heteroelement-containing imido alkyl compds. of Mo and W, $(\text{ArN})_2\text{M}(\text{CH}_2\text{EMe}_3)_2$ (Ar = 2,6-Pri₂C₆H₃; M = Mo, W; E = Si, Ge, Sn) with triflic acid yield a complex mixture of products among which carbene complexes were not observed. The formation of carbene complexes of W in low yields was observed by ¹H NMR spectroscopy in the reactions of $(\text{ArN})_2\text{W}(\text{CH}_2\text{EMe}_3)_2$ (E = Si, Ge, Sn) with HCl in THF-d₈. Catalytic properties of heteroelement-containing alkylidene complexes of Mo $\text{R}_3\text{E-CH:Mo}(\text{NAr})(\text{OCMe}_2\text{CF}_3)_2$ (E = Si, Ge; R = Me, Ph) and also hydrocarbon analogs $\text{Alkyl-CH:Mo}(\text{NAr})(\text{OCMe}_2\text{CF}_3)_2$ (Alkyl = But, PhMe₂C) in metathesis of 1-hexene were studied. The catalytic activity of alkylidene complexes depends essentially on the nature of substituent bonded to the carbene C atom.

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:409207 CAPLUS
DN 142:464178
TI Imido-tethered carbenes of molybdenum for ring-opening metathesis polymerization and ring-closing metathesis
IN Odom, Aaron L.; Ciszewski, James T.
PA Board of Trustees of Michigan State University, USA
SO U.S. Pat. Appl. Publ., 20 pp.
CODEN: USXXCO
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005101475	A1	20050512	US 2003-691328	20031022
	WO 2005086622	A2	20050922	WO 2004-US34410	20041019
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
 SN, TD, TG

PRAI US 2003-691328 A 20031022

OS MARPAT 142:464178

AB Compds. and processes for catalytic ring-opening cyclooligomerization metathesis and ring-closing metathesis of olefins are described. The catalytic compound is Mo or W complex which comprises an imido ligand (N-R) bound to the M to provide an M:NR site, an M:C reaction site, where the C of the M:C reaction site is tethered to the R of the imido ligand via a C or C and heteroatom (N,O,S) chain containing 1-12 C atoms to form a ring structure, and 2-4 ligands (R') bound to the M to provide 2-4 MR' sites. The MR' sites include each of the oxygens of a dialkoxide ligand or each of the nitrogens of an η 1-pyrrolyl ligand bound to the M.

L4 ANSWER 3 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:815124 CAPLUS

DN 142:6626

TI Group-6 Imido Activation by a Ring-Strained Alkyne

AU Lokare, Kapil S.; Ciszewski, James T.; Odom, Aaron L.

CS Department of Chemistry, Michigan State University, East Lansing, MI, 48824, USA

SO Organometallics (2004), 23(23), 5386-5388

CODEN: ORGND7; ISSN: 0276-7333

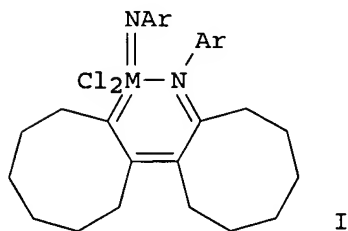
PB American Chemical Society

DT Journal

LA English

OS CASREACT 142:6626

GI



AB Cyclooctyne coupling with Group VIB metal diimide complex gave imino-bicyclocloctenyliene complexes; reductive elimination of the metal affords dicyclocloctenopyrroles. Treatment of $[M(NAr)_2Cl_2(DME)]$ with cyclooctyne results in the formation of I (Ar = 2,6-iPr₂C₆H₃; 1, 2; M = Mo, W). The complexes have metrical and spectroscopic parameters that are most consistent with an alkylidene-imine formulation with some participation by the alkyl-amido resonance form. Thermolysis of metallacycles 1 and 2 generates a dicyclocloctenopyrrole elimination product, with the tungsten derivative being more thermally stable. In addition, the metallacycle is quite hydrolytically stable. Addition of 50% H₂SO₄ to a toluene solution of 2 protolytically cleaves all the ligands on the metal except those associated with the metallacycle, which are retained in the oxo-bridged binuclear product $[W(O)(\mu-O)(:C_8H_{12}:C_8H_{12}:NAr)]_2$ (3). The metallacycles 1-3 will polymerize norbornene in the presence of AlCl₃. Crystal structures of 1-3 are reported.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

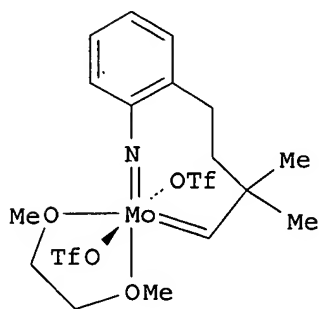
L4 ANSWER 4 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:40130 CAPLUS

DN 140:303800

TI Synthesis, characterization and reactivity of the molybdenum(VI) complex
 [MoCl(NAr)₂(CH₂CMe₂Ph)] (Ar = 2,6-Pri₂C₆H₃)
 AU Gibson, Vernon C.; Redshaw, Carl; Walker, Gary L. P.; Clegg, William;
 Elsegood, Mark R. J.
 CS Department of Chemistry, Imperial College, London, SW7 2AY, UK
 SO Journal of Organometallic Chemistry (2004), 689(2), 332-344
 CODEN: JORCAI; ISSN: 0022-328X
 PB Elsevier Science B.V.
 DT Journal
 LA English
 OS CASREACT 140:303800
 AB The compds. [MoCl(NAr)₂R] (R = CH₂CMe₂Ph (1) or CH₂CMe₃ (2); Ar =
 2,6-Pri₂C₆H₃) have been prepared from [MoCl₂(NAr)₂(dme)] (dme =
 1,2-dimethoxyethane) and one equivalent of the resp. Grignard reagent RMgCl in
 di-Et ether. Similarly, the mixed-imido complex [MoCl₂(NAr)(NBut)(dme)]
 affords [MoCl(NAr)(NBut)(CH₂CMe₂Ph)] (3). Chloride substitution reactions
 of 1 with the appropriate lithium reagents afford the compds.
 [MoCp(NAr)₂(CH₂CMe₂Ph)] (4) (Cp = cyclopentadienyl),
 [MoInd(NAr)₂(CH₂CMe₂Ph)] (5) (Ind = Indenyl), [Mo(OBut)(NAr)₂(CH₂CMe₂Ph)]
 (6), [MoMe(NAr)₂(CH₂CMe₂Ph)] (7), [MoMe(PMe₃)(NAr)₂(CH₂CMe₂Ph)] (8)
 (formed in the presence of PMe₃) and [Mo(NHAr)(NAr)₂(CH₂CMe₂Ph)] (9). In
 the latter case, a byproduct {[Mo(NAr)₂(CH₂CMe₂Ph)]₂(μ-O)} (10) has
 also been isolated. The crystal structures of 1, 4, 5 and 10 have been
 determined. All possess distorted tetrahedral metal centers with cis
 near-linear arylimido ligands; in each case (except 5, for which the
 evidence is unclear) there are α-agostic interactions present.
 RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:862661 CAPLUS
 DN 140:321469
 TI Synthesis and structure of an imido-tethered Schrock carbene of molybdenum
 AU Ciszewski, James T.; Xie, Baohan; Cao, Changsheng; Odom, Aaron L.
 CS Department of Chemistry, Michigan State University, East Lansing, MI, USA
 SO Dalton Transactions (2003), (22), 4226-4227
 CODEN: DTARAF; ISSN: 1477-9226
 PB Royal Society of Chemistry
 DT Journal
 LA English
 OS CASREACT 140:321469
 GI



I

AB An 8-membered molybdenum azametallacycle I, where a Mo:C bond and a Mo:N
 bond are linked, incorporating two triflate co-ligands has been
 synthesized and structurally characterized.
 RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:827376 CAPLUS
 DN 140:77223

TI Molybdenum alkylidyne complexes that contain a 3,3'-di-*t*-butyl-5,5',6,6'-tetramethyl-1,1'-biphenyl-2,2'-diolate ([Biphen]2-) ligand
 AU Schrock, Richard R.; Jamieson, Jennifer Y.; Araujo, James P.; Bonitatebus, Peter J.; Sinha, Amritanshu; Lopez, L. Pia H.
 CS Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139-4307, USA
 SO Journal of Organometallic Chemistry (2003), 684(1-2), 56-67
 CODEN: JORCAI; ISSN: 0022-328X
 PB Elsevier Science B.V.
 DT Journal
 LA English
 OS CASREACT 140:77223
 AB The reaction between K₂[Biphen] ([Biphen]2- = 3,3'-di-*tert*-butyl-5,5',6,6'-tetramethyl-1,1'-biphenyl-2,2'-diolate) and Mo(NArCl)(CH-*t*-Bu)(OTf)₂(dme) (ArCl = 2,6-Cl₂C₆H₃) in the presence of ten equiv NEt₃ gave Mo(NHArCl)(C-*t*-Bu)[Biphen] (4a) in 40-50% yield. Addition of K₂[S-Biphen] to Mo(NArCl)(CHCMe₂Ph)(OTf)₂(THF) in THF gave Mo(NHArCl)(CCMe₂Ph)[S-Biphen] (4b) in approx. 40% yield. An x-ray crystal study of 4b confirmed the proposed structure and also revealed that one ortho chloride approaches within 2.93 Å of the metal approx. trans to the alkylidyne ligand. Addition of one equiv H₂[Biphen] to Mo(CCH₂SiMe₃)[N(*i*-Pr)Ar']₃ (Ar' = 3,5-dimethylphenyl) produced Mo(CCH₂SiMe₃)[Biphen][N(*i*-Pr)Ar'] in situ, which when treated with one equiv 1-adamantanol gave a mixture of Mo(CCH₂SiMe₃)[Biphen](OAd) (9) and three equiv HN(*i*-Pr)Ar', from which 9 could be isolated as a beige powder in 46% yield. An x-ray study of 9 confirmed that it is a pseudotetrahedral species in which the Mo-tp**l**bond.C bond length is 1.707(15) Å and the Mo-tp**l**bond.C-C angle is 168.3(11)°. Addition of ten equiv 2-butyne or 3-hexyne to a pale yellow solution of 9 produced the molybdacyclobutadiene complexes Mo(C₃R₃)[Biphen](OAd) (R = Me or Et; 10a and 10b, resp.) in high yield. Both 10a and 10b decompose slowly in solution, even in the presence of added alkyne. An x-ray structure of the decomposition product of 10a revealed it to have the stoichiometry of 10a plus one addnl. equiv of 2-butyne. The most unusual feature of the structure of this alkyne complex is a fusion of the C₃Me₃ portion of the metallacyclobutadiene ring to carbons in position 5 and 6 in the [Biphen]2- backbone to create a σ allyl linkage. These results suggest that Mo biphenolate alkylidyne complexes are not likely to be stable under conditions where alkynes are metathesized.
 RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:372907 CAPLUS
 DN 140:146245
 TI Transition metal complexes containing functionalized organoimido and phosphaneiminato ligands
 AU Siemeling, U.; Koelling, L.; Kuhnert, O.; Neumann, B.; Stammeler, A.; Stammeler, H. G.; Fink, G.; Kaminski, E.; Kiefer, A.; Schrock, R. R.
 CS Fachbereich Physik Univ., Kassel, Germany
 SO Zeitschrift fuer Anorganische und Allgemeine Chemie (2003), 629(5), 781-792
 CODEN: ZAACAB; ISSN: 0044-2313
 PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 OS CASREACT 140:146245
 AB Two different types of modified imido and phosphaneiminato ligands are investigated, namely chelate ligands and redox-functionalized ligands. The first examples of di(organoimido)chromium as well as di(phosphaneiminato)titanium and niobium chelates are described. Furthermore, the first complexes containing redox-functionalized organoimido ligands are presented, together with the first structurally characterized redox-functionalized phosphaneiminato complex. Compds. of the type [(RN)₂M(CH₂Ph)₂] (M = Cr, Mo) are used as catalysts for the (co-)polymerization of the polar olefins Me methacrylate, acrylonitrile and vinyl acetate. A range of x-ray crystal structure detns. provide clear evidence for the quantum-chemical result that, similar to organoimido complexes, the potential energy well for the angle at the nitrogen atom is very shallow for phosphaneiminato complexes.

RE.CNT 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:25142 CAPLUS
DN 140:94072
TI Product class 6: organometallic complexes of chromium, molybdenum, and tungsten without carbonyl ligands
AU Poli, R.; Smith, K. M.
CS Lab. de Synthèse et d'Electrosynthèse Organometalliques, Faculté de Sciences "Gabriel", Université de Bourgogne, Dijon, F-21100, Fr.
SO Science of Synthesis (2003), 2, 283-332
 CODEN: SSCYJ9
PB Georg Thieme Verlag
DT Journal; General Review
LA English
AB A review presents the methods for the synthesis of various organometallic complexes of chromium, molybdenum, and tungsten without carbonyl ligands.
RE.CNT 192 THERE ARE 192 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:912366 CAPLUS
DN 136:183904
TI New Chiral Molybdenum Catalysts for Asymmetric Olefin Metathesis that Contain 3,3'-Disubstituted Octahydrobinaphtholate or 2,6-Dichlorophenylimido Ligands
AU Schrock, Richard R.; Jamieson, Jennifer Y.; Dolman, Sarah J.; Miller, Stephen A.; Bonitatebus, Peter J., Jr.; Hoveyda, Amir H.
CS Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SO Organometallics (2002), 21(2), 409-417
 CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
OS CASREACT 136:183904
AB Optically pure (R)-5,5',6,6',7,7',8,8'-octahydro-1,1'-bi-2-naphthol was derivatized with mesityl and benzhydryl groups in the 3 and 3' positions to give R-H2Mes2Bitet and R-H2Benz2Bitet, resp. Addition of R-K2Benz2Bitet to Mo(NAr)(CHCMe2Ph)(OTf)2(dme) yielded Mo(NAr)(CHCMe2Ph)(R-Benz2Bitet)(THF) (7), while addition of R-K2Mes2Bitet to Mo(NAr)(CHCMe2Ph)(OTf)2(dme) in THF gave Mo(NAr)(CHCMe2Ph)(R-Mes2Bitet)(THF) (8). Four complexes that contained the 2,6-dichlorophenylimido ligand were prepared by similar procedures, namely, Mo(NArCl)(CHCMe3)(S-Biphen)(THF) (9), Mo(NArCl)(CHCMe3)(R-Trip2BINO)(THF) (10), Mo(NArCl)(CHCMe3)(R-Mes2Bitet)(THF) (11), and Mo(NArCl)(CHCMe3)(R-Benz2Bitet)(THF) (12). X-ray studies of 8, 9, and 12 revealed them to be typical distorted trigonal bipyramids with THF and one biphenolate O occupying axial positions. In 9 and 12 the alkylidene orientation is syn, while in 8 the alkylidene orientation is anti. Catalysts 7, 8, 9, 10, 11, and 12 were all efficient in terms of both conversion (83->99%) and % ee (86-98%) for two standard desymmetrization reactions of (CH2:CMe)2CHOCH2CH:CH2 and of (MeCH:CMe)2OCH2CH:CH2 to form dihydrofurans.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:367194 CAPLUS
DN 135:137581
TI Ferrocenyl-functionalized molybdenum imido complexes: An approach to redox-tunable olefin polymerization catalysts
AU Siemeling, Ulrich; Schrock, Richard R.; Stammer, Anja; Stammer, Hans-Georg; Kuhnert, Oliver
CS Fachbereich Physik, Universität Kassel, Germany
SO Zeitschrift fuer Anorganische und Allgemeine Chemie (2001), 627(5), 925-928
 CODEN: ZAACAB; ISSN: 0044-2313
PB Wiley-VCH Verlag GmbH

DT Journal
LA English
OS CASREACT 135:137581
AB [(FcdippN)2MoCl2(DME)] (1) was used as starting material for the synthesis of the novel ferrocenyl-functionalized complexes [(FcdippN)2Mo(CH2CMe2Ph)2] (2), [(FcdippN)2Mo(OTf)2(DME)] (3), and [(FcdippN)Mo(CHC Me2Ph)(OtBu)2] (4) (Fcdipp = 4-ferrocenyl-2,6-diisopropylphenyl). The crystal structure of 2 was determined. Electrochem. investigations by cyclic voltammetry suggest a communication of the ferrocenyl unit and the molybdenum center in these compds. The monoalkylation of [(DippN)2MoCl2(DME)] to [(DippN)2Mo(CH2CMe2Ph)Cl] (Dipp = 2,6-diisopropylphenyl) was achieved.
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:172335 CAPLUS
DN 134:366765
TI Enantioselective synthesis of unsaturated cyclic tertiary ethers by Mo-catalyzed olefin metathesis
AU Cefalo, Dustin R.; Kiely, Andrew F.; Wuchrer, Margarita; Jamieson, Jennifer Y.; Schrock, Richard R.; Hoveyda, Amir H.
CS Department of Chemistry Merkert Chemistry Center, Boston College, Chestnut Hill, MA, 02467, USA
SO Journal of the American Chemical Society (2001), 123(13), 3139-3140
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 134:366765
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Nonracemic pyrans were obtained by Mo-catalyzed enantioselective olefin metathesis of cyclopentenones in the presence of nonracemic molybdenum carbene complex I (R = R1 = Me2CH; R2 = Ph). E.g., cyclopentene II was stirred in toluene in a dry box; 5 mol% I was added and the solution stirred for 24 h at 50°; quenching with air and moist Et2O, chromatog. and distillation provided the nonracemic dihydropyran III in 95% yield and 91% ee. Dihydropyrans such as III could also be obtained by asym. olefin metathesis of acyclic trienes, e.g., (H2C:CHCH2)2C(OCH2CH:CH2)CH2CH2Ph, in the presence of I. III was converted to nonracemic lactone IV, an intermediate in the preparation of the anti-HIV agent tipranavir V.
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:540304 CAPLUS
DN 133:281869
TI Synthesis of Molybdenum Imido Alkylidene Complexes That Contain 3,3'-Dialkyl-5,5',6,6'-tetramethyl-1,1'-biphenyl-2,2'-diolates (Alkyl = t-Bu, Adamantyl). Catalysts for Enantioselective Olefin Metathesis Reactions
AU Alexander, John B.; Schrock, Richard R.; Davis, William M.; Hultzsch, Kai C.; Hoveyda, Amir H.; Houser, Jeffrey H.
CS Departments of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SO Organometallics (2000), 19(18), 3700-3715
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
OS CASREACT 133:281869
AB Two 3,3'-dialkyl-5,5',6,6'-tetramethyl-1,1'-biphenyl-2,2'-diols (alkyl = t-Bu, 1-adamantyl) were prepared in two steps and resolved as the menthol

phosphate derivative Addition of the dipotassium salt of each biphenolate to various Mo(N-Aryl)(CHR)(OTf)₂(DME) complexes produced racemic and enantiopure compds. Mo(N-aryl)(CHR)(biphenolate). X-ray crystallog. studies of syn-Mo(N-2,6-i-Pr₂C₆H₃)(CHCMe₂Ph)[(S)-Biphen] and syn-Mo(N-2-CF₃C₆H₄)(CHCMe₃)[(S)-Biad](pyridine) proved the absolute stereochem. of the biphenolate ligands. Neophylidene and neopentylidene complexes have predominantly the syn conformation in solution The [syn]/[anti] equilibrium constant for Mo(N-Aryl)(CHR)[Biphen] complexes increased in magnitude with decreasing size of the arylimido ligand, and decreased upon reducing the steric bulk of the alkylidene substituent. The rates of exchange of syn and anti isomers, as determined by single-parameter line shape anal. and by spin saturation transfer, are on the order of .apprx.1 s⁻¹ at 22°.

RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:509640 CAPLUS
DN 133:193237
TI Bis(arylimido) molybdenum(VI) amidinate and guanidinate complexes; molecular structures of [(ArN)₂MoMe{N(Cy)C[N(i-Pr)₂]N(Cy)}] (Ar = 2,6-i-Pr₂C₆H₃; Cy = cyclohexyl) and [(2,6-i-Pr₂C₆H₃N)₂MoCl₂]·[NH=C(C₆H₅)CH(SiMe₃)₂]
AU Hao, Haijun; Cui, Chunming; Bai, Guangcai; Roesky, Herbert W.; Noltemeyer, Mathias; Schmidt, Hans-Georg; Ding, Yuqiang
CS Inst. Anorg. Chem., Univ. Gottingen, Gottingen, D-37077, Germany
SO Zeitschrift fuer Anorganische und Allgemeine Chemie (2000), 626(7), 1660-1664
CODEN: ZAACAB; ISSN: 0044-2313
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
AB The reaction of [(ArN)₂MoCl₂(DME)] (Ar = 2,6-i-Pr₂C₆H₃) (1) with Li amidinates or guanidinates resulted in Mo(VI) complexes [(ArN)₂MoCl{N(R₁)C(R₂)N(R₁)}] (R₁ = Cy (cyclohexyl), R₂ = Me (2); R₁ = Cy, R₂ = N(i-Pr)₂ (3); R₁ = Cy, R₂ = N(SiMe₃)₂ (4); R₁ = SiMe₃, R₂ = Ph (5)) with five coordinated Mo atoms. Methylation of these compds. was exemplified by the reactions of 2 and 3 with MeLi affording the corresponding methylates [(ArN)₂MoMe{N(R₁)C(R₂)N(R₁)}] (R₁ = Cy, R₂ = Me (6); R₁ = Cy, R₂ = N(i-Pr)₂ (7)). The analogous reaction of 1 with bulky [N(SiMe₃)CPhC(SiMe₃)₂]Li·THF did not give the corresponding metathesis product, but a Schiff base adduct [(ArN)₂MoCl₂(NH:CPhCH(SiMe₃)₂)] (8) in low yield. The mol. structures of 7 and 8 were established by the x-ray single crystal structural anal.

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:464500 CAPLUS
DN 133:271947
TI Steric versus electronic effects in six-co-ordinate d⁰ cis-bis(imido) molybdenum complexes
AU del Rio, Diego; Montilla, Francisco; Pastor, Antonio; Galindo, Agustin; Monge, Angeles; Gutierrez-Puebla, Enrique
CS Departamento de Quimica Inorganica, Universidad de Sevilla, Seville, 41071, Spain
SO Dalton (2000), (14), 2433-2437
CODEN: DALTFG
PB Royal Society of Chemistry
DT Journal
LA English
AB The previously reported molybdenum(VI) cis-bis(imido) complex [Mo(Nmes)₂Cl₂(PMe₃)₂] 2 (mes = C₆H₂Me₃-2,4,6) displayed NMR properties consistent with a cis-chloride, trans-PMe₃ configuration at the metal center. LSDA d. functional calcns. on the cis-bis(imido) models [Mo(NR)₂Cl₂(PR'₃)₂] (R = H, Me or Ph for R' = H and R = H for R' = Me) were performed in order to establish the reason why 2 does not adopt the expected trans-chloride, cis-PMe₃ geometry. The relative stabilities of three different isomers (cis-chloride, trans-PR'₃; trans-chloride,

cis-PR'3 and cis-chloride, cis-PR'3) of such species were examined. The actual stereochem. of 2 was properly reproduced by the calcns. as the most stable isomer only when no simplification of the PMe3 ligand by PH3 was considered in the model. The use of PH3 yields the cis-chloride, trans-PH3 configuration as the most unstable isomer. The inversion in the trend of relative stabilities of the three isomers is discussed on the basis of steric considerations. The tendency of π -donor chloride ligands to occupy cis positions with respect to the d0 bis(imido) moiety was overcome by the steric incompatibility of two cis-PMe3 ligands. The mol. structure of [Mo(Nmes)2Cl2(dme)] 1 was determined by an X-ray study and the reaction of 1 with PMe3 to yield 2 revised.

RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:225100 CAPLUS
DN 133:67821

TI High oxidation state imido metallasiloxanes: synthesis and structural characterisation of novel bis-imido chromium(VI) and molybdenum(VI) compounds

AU King, Lawrence; Motevall, Majid; Sullivan, Alice C.

CS Department of Chemistry, Queen Mary and Westfield College, London, E1 4NS, UK

SO Dalton (2000), (8), 1357-1362
CODEN: DALTFG

PB Royal Society of Chemistry

DT Journal

LA English

AB For reactions between [M(NBut)2Cl2] (M = Cr or Mo) or [Mo(NAr)2Cl2]·dme (Ar = 2,6-Pri2C6H3, dme = 1,2-dimethoxyethane), and tetraphenyldisiloxanediol, [O(Ph2SiOH)2] (2:1), in the presence of a nitrogen donor base, changing the N donor from pyridine to NEt3 inhibited the protonation of imido groups and facilitated the formation of bis-imido compds. Thus, [Cr(NBut)2(O(Ph2SiO)2)]2 (1), [Mo(NBut)2(O(Ph2SiO)2)]2 (2) and [Mo(NAr)2(O(Ph2SiO)2)]2 (3) were isolated when NEt3 was used as base. Compound 3 was also formed when the dilithium reagent [O(Ph2SiOLi)2] was used. The pyridine adduct [Mo(NAr)2Cl2]·2py (4) was isolated from the reaction between [Mo(NAr)2Cl2] and O(Ph2SiOH)2 and py (1:1:2 molar ratio). Compds. 2, 3·C6H6 and 4·0.5C6H5Me were characterized by x-ray crystallog. The dimeric composition of 1 in the gas phase and in benzene was confirmed by mass spectroscopy and cryoscopic mol. weight determination resp. All compds. were characterized by NMR spectroscopy.

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:107417 CAPLUS
DN 132:222655

TI Synthesis and structure of the tetrameric [Cp*V(μ -F)2]4 (Cp* = C5Me5); preparation of the imido molybdenum fluoride [(2,6-i-Pr2C6H3N)2MoF2]·THF and the structural investigation of [(2,6-i-Pr2C6H3N)6Mo4(μ 3-F)2Me2(μ -O)4]

AU Hao, Haijun; Roesky, Herbert W.; Cui, Chunming; Schmidt, Hans-Georg; Noltemeyer, Mathias; Yu, Peihua; Bai, Guangcai

CS Institut für Anorganische Chemie der Universität, Göttingen, Germany

SO Zeitschrift für Anorganische und Allgemeine Chemie (2000), 626(2), 368-373
CODEN: ZAACAB; ISSN: 0044-2313

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

AB Treating [Cp*V(μ -Cl)2]3 (Cp* = C5Me5) and [(2,6-i-Pr2C6H3N)2MoMe2], resp., with Me3SnF afforded the title compds. [Cp*V(μ -F)2]4 (1) and [(2,6-i-Pr2C6H3N)2MoF2]·THF (2). 1 Has a tetrameric structure, in which four V atoms can be regarded as being arranged at the vertices of a distorted tetrahedron, with four long edges bridged by one F atom and each of the other two short edges bridged by two F atoms with a mean V-F bond length of 2.00 Å. A hydrolyzed product of 2, [(2,6-i-Pr2C6H3N)6Mo4(μ 3-F)2Me2(μ -O)4] (3) was characterized by elemental

analyses and X-ray single crystal study. The X-ray diffraction anal. revealed that 3 has a unique tetranuclear structure, containing two five and two six coordinated Mo atoms connecting each other by four μ -O and two μ -F atoms. The geometries around the two Mo atoms can be described having distorted trigonal bipyramidal and distorted octahedral coordination spheres, resp. The Mo-(μ -O) bond lengths are 1.813 Å (average) for five coordinated Mo atoms and 2.030 Å (average) for those of six coordinated, resp., indicating addnl. π bonding between five coordinated Mo atoms and μ -O atoms. The Mo-(μ -F) distances range from 2.291 to 2.352 Å.

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:53537 CAPLUS
DN 132:107544
TI Asymmetric metathesis reactions involving achiral and meso substrates
IN Schrock, Richard R.; Hoveyda, Amir H.
PA Massachusetts Institute of Technology, USA
SO PCT Int. Appl., 96 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000002834	A1	20000120	WO 1999-US15816	19990713
	W: AU, CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6346652	B1	20020212	US 1998-114692	19980713
	AU 9950993	A1	20000201	AU 1999-50993	19990713
	EP 1097116	A1	20010509	EP 1999-935533	19990713
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1998-114692	A	19980713		
	WO 1999-US15816	W	19990713		
OS	CASREACT 132:107544; MARPAT 132:107544				
AB	The title process comprises catalytic conversion of a racemic mixture of dienes to a cyclic olefin by a ring-closing metathesis reaction providing for catalytic enantioselective desymmetrization. The catalyst comprises a transition metal complex with an M=C reaction site containing a bidentate dialkoxide of at least 80 % optical purity. Thus, MeCH:CMech(OSiEt3)CH2CH2CH:CH2 (I) was treated with optically active catalyst to give 81% conversion to a 43:31 product mixture of (S)-2-methyl-3-triethylsilyloxycyclopentane of 93% ee and dimer and (R)-I of >99% ee.				

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:760496 CAPLUS
DN 132:122965
TI Transition metal imido catalysts for ethylene polymerization
AU Coles, M. P.; Dalby, C. I.; Gibson, V. C.; Little, I. R.; Marshall, E. L.; Ribeiro da Costa, M. H.; Mastroianni, S.
CS Department of Chemistry, Imperial College, London, UK
SO Journal of Organometallic Chemistry (1999), 591(1-2), 78-87
CODEN: JORCAI; ISSN: 0022-328X
PB Elsevier Science S.A.
DT Journal
LA English
AB The imido complexes CpV(N-2-MeC6H4)Cl2, Cr(N-Me3C)2Cl2, CpNb(N-2-(Me3C)C6H4)Cl2 and Mo(N-Me3C)2Cl2 were tested as pro-catalysts for the polymerization of ethylene in combination with diethylaluminium chloride or methylaluminoxane (MAO) co-catalysts. The V precursors give the highest activities but are short-lived, while the Cr system gives a long-lived catalyst of moderate activity, both giving essentially linear polyethylene of high mol. weight. The Nb and Mo derivs. gave relatively low

activities under all test conditions. The dialkyl complexes $\text{Cr}(\text{NCMe}_3)_2(\text{CH}_2\text{Ph})_2$, $\text{Cr}(\text{N}-2,6(\text{Me}_2\text{CH})_2\text{C}_6\text{H}_3)_2(\text{CH}_2\text{Ph})_2$, $\text{Cr}(\text{N}-2,6(\text{Me}_2\text{CH})_2\text{C}_6\text{H}_3)_2\text{Me}_2$, $\text{Mo}(\text{N}-\text{CMe}_3)_2(\text{CH}_2\text{Ph})_2$, $\text{Mo}(\text{N}-2,6(\text{Me}_2\text{CH})_2\text{C}_6\text{H}_3)_2(\text{CH}_2\text{Ph})_2$, $(\text{C}_5\text{Me}_5)\text{Nb}(\text{N}-2,6(\text{Me}_2\text{CH})_2\text{C}_6\text{H}_3)\text{Me}_2$ and $(\text{C}_5\text{Me}_5)\text{Ta}(\text{NCMe}_3)(\text{CH}_2\text{Ph})_2$ were prepared by treatment of the dihalide precursors with appropriate alkylating reagents and studied as precursors to well-defined cationic alkyl catalysts. Treatment of $\text{Cr}(\text{NCMe}_3)_2(\text{CH}_2\text{Ph})_2$ with $[\text{Ph}_3\text{C}][\text{B}(\text{C}_6\text{F}_5)_4]$ affords the cationic η^2 -benzyl species $[\text{Cr}(\text{NCMe}_3)_2(\eta^2\text{-CH}_2\text{Ph})][\text{B}(\text{C}_6\text{F}_5)_4]$ while its reaction with $[\text{PhNMe}_2\text{H}][\text{B}(\text{C}_6\text{F}_5)_4]$ liberates toluene to give a mixture of the mono and bis(dimethylaniline) adducts $[\text{Cr}(\text{NCMe}_3)_2(\eta^2\text{-CH}_2\text{Ph})(\text{NMe}_2\text{Ph})][\text{B}(\text{C}_6\text{F}_5)_4]$ and $[\text{Cr}(\text{NCMe}_3)_2(\eta^2\text{-CH}_2\text{Ph})(\text{NMe}_2\text{Ph})_2][\text{B}(\text{C}_6\text{F}_5)_4]$. Complex $[\text{Cr}(\text{NCMe}_3)_2(\eta^2\text{-CH}_2\text{Ph})][\text{B}(\text{C}_6\text{F}_5)_4]$ reacts with trimethylphosphine to give the mono-phosphine adduct $[\text{Cr}(\text{NCMe}_3)_2(\eta^2\text{-CH}_2\text{Ph})(\text{PMe}_3)][\text{B}(\text{C}_6\text{F}_5)_4]$.

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:604233 CAPLUS

DN 131:351412

TI Synthesis of Chelate-Supported Dialkyl and Alkylidene Complexes of Molybdenum(VI)

AU Ortiz, Carlos G.; Abboud, Khalil A.; Boncella, James M.

CS Department of Chemistry and Center for Catalysis, University of Florida, Gainesville, FL, 32611-7200, USA

SO Organometallics (1999), 18(21), 4253-4260

CODEN: ORGND7; ISSN: 0276-7333

PB American Chemical Society

DT Journal

LA English

AB The use of chelating diamide $[\text{o}-(\text{Me}_3\text{SiN})_2\text{C}_6\text{H}_4]^{2-}$ as a coligand for high-oxidation early transition metal complexes was studied. Reaction of $\text{Mo}(\text{NPh})_2\text{Cl}_2\text{DME}$ with $\text{Li}_2[\text{o}-(\text{Me}_3\text{SiN})_2\text{C}_6\text{H}_4]$ afforded green microcrystals of $[\text{Mo}(\text{NPh})(\mu\text{-NPh})(\text{o}-(\text{Me}_3\text{SiN})_2\text{C}_6\text{H}_4)]_2$ (1), while reaction of $\text{Mo}(\text{NPh})_2\text{Cl}_2\text{DME}$ with $\text{H}_2[\text{o}-(\text{Me}_3\text{SiN})_2\text{C}_6\text{H}_4]$ gave $\text{Mo}(\text{NPh})\text{Cl}_2(\text{o}-(\text{Me}_3\text{SiN})_2\text{C}_6\text{H}_4)(\text{NH}_2\text{Ph})$ (2). Two derivs. of 2 are reported, $\text{Mo}(\text{NPh})\text{Cl}_2(\text{o}-(\text{Me}_3\text{SiN})_2\text{C}_6\text{H}_4)(\text{PMe}_3)$ (3) and $\text{Mo}(\text{NPh})\text{Cl}_2(\text{o}-(\text{Me}_3\text{SiN})_2\text{C}_6\text{H}_4)(\text{THF})$ (4). Structural studies of 3 are reported. Reaction of 3 or 4 with RMgX ($\text{X} = \text{Cl}$ or Br) gave $\text{Mo}(\text{NPh})\text{R}_2(\text{o}-(\text{Me}_3\text{SiN})_2\text{C}_6\text{H}_4)$ ($\text{R} = \text{Me}$ 5, Ph 6, CH_2CMe_3 7, CH_2Ph 8, CH_2SiMe_3 9). Reaction of 2 with RMgCl ($\text{R} = \text{CH}_2\text{CMe}_3$, CH_2SiMe_3) gave mixts. of $\text{Mo}(\text{NPh})\text{R}_2(\text{o}-(\text{Me}_3\text{SiN})_2\text{C}_6\text{H}_4)$ and $\text{Mo}(\text{NPh})_2\text{R}_2$. Both $\text{Mo}(\text{NPh})_2(\text{CH}_2\text{CMe}_3)_2$ (10) and $\text{Mo}(\text{NPh})_2(\text{CH}_2\text{SiMe}_3)_2$ (11) were isolated from the reaction of $\text{Mo}(\text{NPh})_2\text{Cl}_2\text{DME}$ and RMgCl ($\text{R} = \text{CH}_2\text{CMe}_3$, CH_2SiMe_3). The alkylidene, $\text{Mo}(\text{NPh})(\text{C}(\text{H})\text{CMe}_3)(\text{o}-(\text{Me}_3\text{SiN})_2\text{C}_6\text{H}_4)(\text{PMe}_3)$ (13), was isolated from the reaction of 7 and an excess of PMe_3 at 80° , while $\text{Mo}(\text{NPh})(\text{C}(\text{H})\text{SiMe}_3)(\text{o}-(\text{Me}_3\text{SiN})_2\text{C}_6\text{H}_4)(\text{PMe}_3)$ (14) was only observed by ^1H NMR under similar conditions. Small samples of the dialkyls 7, 8, and 9 were heated to 85° in toluene for 0.5 h. To these reaction mixts., toluene solns. of freshly sublimed norbornene were added and stirred without heat for 1 h. Moderate quantities of polynorbornene were isolated in both cases as white solids.

RE.CNT 77 THERE ARE 77 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:371442 CAPLUS

DN 131:116333

TI Molybdenum(VI) Bis(imidoaryl) Complexes Containing the Bis(aminomethyl)aryl "Pincer" Ligand $[\text{C}_6\text{H}_3(\text{CH}_2\text{NMe}_2)_{2-2,6}]^{2-}(\text{NCN})$: Structures of $[\text{MoCl}(\eta^2\text{-C,N-NCN})(\text{NAr})_2]$, $[\text{Mo}(\eta^2\text{-C,N-NCN})(\text{Me})(\text{NAr})_2]$, and $[\text{MoCl}_2\{\eta^2\text{-C,N-NCN}(\text{NH})\}(\text{NAr})_2]$

AU Brandts, Jim A. M.; Gossage, Robert A.; Boersma, Jaap; Spek, Anthony L.; Van Koten, Gerard

CS Department of Metal-Mediated Synthesis Debye Institute, Utrecht University, Utrecht, 3584 CH, Neth.

SO Organometallics (1999), 18(14), 2642-2648

CODEN: ORGND7; ISSN: 0276-7333

PB American Chemical Society

DT Journal

LA English
 OS CASREACT 131:116333
 AB The synthesis and characterization of new, five-coordinate molybdenum bis(imido) chloride complexes $[\text{MoCl}(\text{NCN})(\text{N}-t\text{-Bu})_2]$ (2) and $[\text{MoCl}(\eta^2\text{-C,N-NCN})(\text{NAr})_2]$ (3) and the methylated derivative $[\text{Mo}(\eta^2\text{-C,N-NCN})(\text{Me})(\text{NAr})_2]$ (5) ($\text{NCN} = [\text{C}_6\text{H}_3(\text{CH}_2\text{NMe}_2)_2\text{-2,6}]^-$, $\text{Ar} = \text{C}_6\text{H}_3\text{-i-Pr}_2\text{-2,6}$) are reported. Compds. 3 and 5 react with HCl to yield the corresponding air-stable salts $[\text{MoCl}_2\{\text{C}_6\text{H}_3(\text{CH}_2\text{NMe}_2)_2\text{-2-(CH}_2\text{NHMe}_2\text{)-6}\}(\text{NAr})_2]$ (4) and $[\text{MoCl}\{\text{C}_6\text{H}_3(\text{CH}_2\text{NMe}_2)_2\text{-2-(CH}_2\text{NHMe}_2\text{)-6}\}(\text{Me})(\text{NAr})_2]$ (6), resp., of which 3-5 have been characterized by x-ray anal. x-ray structure determination of 4 shows an addnl. chloride anion bonded to the molybdenum metal center while one of the ortho-(dimethylamino)methyl substituents of the NCN ligand has been selectively protonated. This proton is hydrogen bonded to one of the chloride ligands ($\text{N-H}\cdots\text{Cl}$ 166.2°; $\text{H}\cdots\text{Cl}$ 1.94 Å). Because the spectroscopic data (NMR, IR) of 6 are very similar to those found for 4, complex 6 is believed to have structural characteristics (both in solution and in the solid state) similar to 4. The proton on the ortho-(dimethylamino)methyl group of the NCN ligand in 4 and 6 reacts immediately with an alkyl-Grignard or lithium reagents with formation of the corresponding alkane, the magnesium or lithium salt, and 3 and 5, resp. Further reactions of 2, 4, and 6 with an excess of HCl, aimed at cleaving one of the imido groups, yielded unidentifiable reaction mixts. instead.

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1999:14031 CAPLUS
 DN 130:282131
 TI Synthesis, characterization and reactivity of the molybdenum(VI) dimethyl complex $[\text{Mo}(\text{NR})_2\text{Me}_2]$ ($\text{R} = 2,6\text{-Pri}_2\text{C}_6\text{H}_3$)
 AU Gibson, Vernon C.; Redshaw, Carl; Walker, Gary L. P.; Howard, Judith A. K.; Hoy, Vanessa J.; Cole, Jacqueline M.; Kuzmina, Lyudmila G.; De Silva, Dinali S.
 CS Department of Chemistry, Imperial College, London, SW7 2AY, UK
 SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1999), (2), 161-166
 CODEN: JCDTBI; ISSN: 0300-9246
 PB Royal Society of Chemistry
 DT Journal
 LA English
 AB The reaction of $[\text{Mo}(\text{NR})_2\text{Cl}_2(\text{dme})]$ ($\text{R} = 2,6\text{-Pri}_2\text{C}_6\text{H}_3$, $\text{dme} = 1,2\text{-dimethoxyethane}$) with 2 equiv of methylmagnesium bromide in Et_2O afforded $[\text{Mo}(\text{NR})_2\text{Me}_2]$ (2) as a red crystalline solid in good yield. Treatment of 2 with the donor mols. THF, pyridine, PMe_3 , PMe_2Ph gave the five-coordinate adducts $[\text{Mo}(\text{NR})_2\text{Me}_2(\text{L})]$ ($\text{L} = \text{PMe}_3$, PMe_2Ph (4), THF or pyridine). Exposure of solns. of 2 to atmospheric dioxygen afforded the orange methoxide-bridged complex $[\{\text{Mo}(\text{NR})_2\text{Me}(\mu\text{-OMe})\}_2]$ (7). $[\{\text{Mo}(\text{NBut})_2\text{Me}(\mu\text{-OMe})\}_n]$ ($n = 1$ or 2) was obtained from the reaction of $[\{\text{Mo}(\text{NBut})_2\text{Me}_2\}_2]$ with dioxygen. The crystal structures of 2, 4 and 7 were determined

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 22 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1996:464465 CAPLUS
 DN 125:115466
 TI Metal complexes as catalysts for photochemical ring-opening metathesis polymerization of cyclic olefins
 IN Hafner, Andreas; Muehlebach, Andreas; Van der Schaaf, Paul Adriaan
 PA Ciba-Geigy A.-G., Switz.
 SO PCT Int. Appl., 52 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9616105	A1	19960530	WO 1995-EP4364	19951106

W: AL, AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

CA 2205458	AA	19960530	CA 1995-2205458	19951106
AU 9538712	A1	19960617	AU 1995-38712	19951106
AU 707175	B2	19990701		
EP 792306	A1	19970903	EP 1995-937873	19951106
EP 792306	B1	19981209		

R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE

CN 1164247	A	19971105	CN 1995-196284	19951106
BR 9510340	A	19980602	BR 1995-10340	19951106
JP 10508894	T2	19980902	JP 1995-516499	19951106
AT 174358	E	19981215	AT 1995-937873	19951106
ES 2126947	T3	19990401	ES 1995-937873	19951106
US 5776997	A	19980707	US 1997-817624	19970423
NO 9702184	A	19970513	NO 1997-2184	19970513

PRAI CH 1994-3460 A 19941117
WO 1995-EP4364 W 19951106

OS MARPAT 125:115466

AB The title catalysts, useful for polymerizing cyclic olefins such as norbornene to give moldings, coatings, etc., comprise thermally stable Ti(IV), Nb(V), Ta(V), Mo(VI), or W(VI) compds. having a silylmethyl group and ≥ 1 halo group bonded to the metal. Norbornene was mixed with (iso-PrO)₂Ti(CH₂SiMe₃)Cl, Me₃SiCH₂TaCl₄, or (Me₃CO)₂W(:NPh)(CH₂SiMe₃)Cl and exposed to UV radiation to give a polymer.

L4 ANSWER 23 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:462432 CAPLUS

DN 125:87482

TI Catalysts for thermal ring-opening metathesis polymerization of cyclic olefins

IN Van der Schaaf, Paul Adriaan; Hafner, Andreas; Muehlebach, Andreas

PA Ciba-Geigy A.-G., Switz.

SO PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9616102	A1	19960530	WO 1995-EP4358	19951106
W: AL, AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				

AU 9539274	A1	19960617	AU 1995-39274	19951106
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PRAI CH 1994-3462 A 19941117

WO 1995-EP4358 W 19951106

OS MARPAT 125:87482

AB The title catalysts, useful for polymerizing cyclic olefins such as dicyclopentadiene (I) to give moldings, coatings, etc., comprise Mo(VI) or W(VI) compds. which contain ≥ 2 Me groups or 2 mono-substituted Me groups bonded to the metal, the substituent having no H in the α position. I was polymerized in the presence of W(:NPh)(OCMe₃)(CH₂SiMe₃)₂Cl at 60°.

L4 ANSWER 24 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:58059 CAPLUS

DN 124:88149

TI Catalysts for metathesis reaction

PA Teijin Meton K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 34 pp.

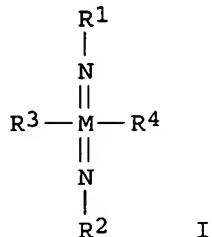
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07258390	A2	19951009	JP 1994-337013	19941227
	JP 3212820	B2	20010925		
PRAI	US 1993-174994	A	19931229		
OS	MARPAT 124:88149				
GI					



AB A metathesis catalyst composition comprises the catalyst precursor I (M = Mo, W; R1-R4 = alkyl, cycloalkyl, cycloalkenyl, polycycloalkyl, polycycloalkenyl, haloalkyl, haloaralkyl, aryl, aralkyl) and an activator, which activates the catalyst precursor, selected from alcs., phenols, silanols, thiols, thiophenols, and diols. The alkylidene formation when Mo(NCMe3)2(CH2CMe3)2 is activated by hexafluoro-2-propanol was confirmed by 1H MNR, and this catalytic system was used in the polymerization of dicyclopentadiene.

L4 ANSWER 25 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:916458 CAPLUS

DN 123:314873

TI Process for the polymerization of cyclic olefins, photopolymerizable compositions, coatings therefrom, and manufacture of ring-opening metathesis polymerization catalysts

IN Hafner, Andreas; Van Der Schaaf, Paul A.; Muehlebach, Andreas

PA Ciba-Geigy A.-G., Switz.

SO PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9514051	A1	19950526	WO 1994-EP3673	19941108
	W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, NO, NZ, PL, RO, RU, SI, SK, TJ, TT, UA, US, UZ, VN				
	RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2173499	AA	19950526	CA 1994-2173499	19941108
	AU 9481410	A1	19950606	AU 1994-81410	19941108
	EP 729485	A1	19960904	EP 1995-900681	19941108
	EP 729485	B1	19990303		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	CN 1135227	A	19961106	CN 1994-194164	19941108
	CN 1041423	B	19981230		
	HU 74775	A2	19970228	HU 1996-1343	19941108
	JP 09505105	T2	19970520	JP 1994-514194	19941108
	CZ 283715	B6	19980617	CZ 1996-1425	19941108
	AT 177121	E	19990315	AT 1995-900681	19941108
	ES 2129790	T3	19990616	ES 1995-900681	19941108
	JP 3352694	B2	20021203	JP 1995-514194	19941108
	ZA 9409130	A	19950518	ZA 1994-9130	19941117
	US 5753721	A	19980519	US 1996-646302	19960516

PRAI CH 1993-3443 A 19931118
WO 1994-EP3673 W 19941108

OS MARPAT 123:314873

AB A process for photocatalytic polymerization of cyclic olefin(s) in the presence of a metal compound catalyst comprises carrying out a photochem. induced ring-opening metathesis polymerization in the presence of ≥ 1 thermostable Mo(VI) or W(VI) compound which contains ≥ 2 Me groups (or monosubstituted) lacking β -hydrogen atoms in the substituent and which are bonded to the metal atom. The process may be carried out by first irradiating and terminating the polymerization by heating. Norbornene was polymerized in toluene in the presence of $W(:NPh)(OCMe_3)Cl(CH_2SiMe_3)_2$ with UV-laser irradiation for 5 min to obtain a polymer in quant. yield with Mn 88,000, Mw 340,000, and cis double bond content 90%.

L4 ANSWER 26 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:750546 CAPLUS

DN 123:144885

TI Metal imido complexes of Group V or VI metals as polymerization catalysts for olefins

IN Gibson, Vernon Charles

PA BP Chemicals Ltd., UK

SO Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 641804	A2	19950308	EP 1994-306158	19940819
	EP 641804	A3	19950614		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
PRAI	GB 1993-17763	A	19930825		
	GB 1994-12466	A	19940622		

OS MARPAT 123:144885

AB Imido complexes $R_1N:M_1(X)Y_2$ and $Y_2M_2(:NR_1):NR_2$ (M_1 = Group V metal, especially V; M_2 = Group VI metal, especially Cr; R_1, R_2 = alkyl, aryl; R_1R_2 = C3-6 alkylene, arylalkylene, or heteroalkylene; X = organic group containing cyclopentadienyl nucleus; Y = univalent anionic ligand, halo, amido, H, alkyl, aryl) are useful as olefin (e.g., ethylene and 4-methyl-1-pentene) polymerization catalysts which show good resistance to catalyst poisons. Catalysts $(BuN:)_2Cr(OSiMe_3)_2$ and $(BuN:)_2CrCl_2$ were prepared and used for the polymerization of ethylene.

L4 ANSWER 27 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:608130 CAPLUS

DN 123:46677

TI Synthesis of (Hexafluoro-tert-butyl)amine and Molybdenum(VI) (Hexafluoro-tert-butyl)imido Complexes

AU Buchmeiser, Michael; Schrock, Richard R.

CS Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA

SO Inorganic Chemistry (1995), 34(13), 3553-4

CODEN: INOCAJ; ISSN: 0020-1669

PB American Chemical Society

DT Journal

LA English

AB The synthesis of $[(CF_3)_2MeCNH_3]+Cl^-$ from $(CF_3)_2C=NH$ in an overall yield of 90-95% is described. Hexafluoro-t-butylamine was prepared by treating a suspension of $[(CF_3)_2MeCNH_3]+Cl^-$ in glycerol with KOH pellets at 60°. $KNHMe(CF_3)_2$ can be prepared readily from $[(CF_3)_2MeCNH_3]+Cl^-$ and KH in THF. $Mo(O)[NCMe(CF_3)_2]Cl_2(py)_2$ was prepared virtually quant. from $(NH_4)_2MoO_7$, trimethylchlorosilane, and pyridine in dimethoxyethane. Addition of excess t-Bu amine to $Mo(O)[NCMe(CF_3)_2]Cl_2(py)_2$ gave $Mo(NtBu)_2Cl_2(py)_2$ quant. The mixed imido complex, $Mo[NCMe(CF_3)_2](NAr)Cl_2(py)_2$ ($Ar = 2,6-i-Pr_2C_6H_3$), could be prepared in high yield, but disproportionated to give $Mo(NAr)_2Cl_2(py)_2$ slowly in solution. Addition of $PhMe_2CCH_2MgCl$ to $Mo[NCMe(CF_3)_2](NAr)Cl_2(py)_2$ led only to known $Mo(NAr)_2(CH_2CMe_2Ph)_2$ in <50% yield.

L4 ANSWER 28 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:538828 CAPLUS
 DN 122:280619
 TI Multiple Imido Complexes of Molybdenum: Synthesis and Reactivity of the d0
 Mo(=NR)₃ Functional Group
 AU Morrison, Donald L.; Wigley, David E.
 CS Department of Chemistry, University of Arizona, Tucson, AZ, 85721, USA
 SO Inorganic Chemistry (1995), 34(10), 2610-16
 CODEN: INOCAJ; ISSN: 0020-1669
 PB American Chemical Society
 DT Journal
 LA English
 AB Red-orange crystals of the tris(imido) anion of Mo, [Mo(NAr)₃Cl]⁻ (3, Ar =
 2,6-C₆H₃-i-Pr₂) are isolated as the [Li(THF)₄]⁺ salt from the rapid workup
 of the reaction between Mo(NAr)₂Cl₂(THF)₂ (1) and 2 equiv of LiNHAr (in
 THF). [Li(THF)₄][Mo(NAr)₃Cl] (3) constitutes the kinetic product of this
 reaction since it readily reacts with byproduct H₂NAr to afford stable
 Mo(NAr)₂(NHAr)₂ (4). Complex 3 undergoes nucleophilic attack by PMe₃,
 MeLi, Me₃CCH₂Li, or Br⁻ to form Mo(NAr)₃(PMe₃) (5), [Li(THF)₄][Mo(NAr)₃Me]
 (6), [Li(THF)₄][Mo(NAr)₃(CH₂CMe₃)] (7), and [Bu₄N][Mo(NAr)₃Br] (8), resp.
 The imido ligands in these tris(imido) complexes are also subject to
 electrophilic attack by a range of electrophiles to afford four- or
 five-coordinate bis(imido) complexes of Mo(VI). Thus, Mo(NAr)₂(OCMe₃)₂
 (9) was prepared from Mo(NAr)₃(PMe₃) (5) and Me₃COH, while metallacyclic
 Mo[NArC(O)NPh](NAr)₂(PMe₃) (10) arises from Mo(NAr)₃(PMe₃) (5) and PhNCO.
 [Li(THF)₄][Mo(NAr)₃Cl] (3) is readily protonated by cyclopentadiene C₅H₆
 to provide CpMo(NAr)₂(NHAr) (11, Cp = [η⁵-C₅H₅]⁻). The reaction of
 [HNMe₃]BPh₄ with [Li(THF)₄][Mo(NAr)₃(CH₂CMe₃)] (7) protonates an imido
 ligand rather than the alkyl to give Mo(NAr)₂(NHAr)(CH₂CMe₃) (12). The
 electronic structure of the d0 Mo(=NR)₃ functional group is described in
 terms of related M(σ+2π)₃ complexes with 3-fold symmetry.

L4 ANSWER 29 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:334263 CAPLUS
 DN 122:176955
 TI Tris(2,6-diisopropylphenylimido) complexes of molybdenum: kinetic
 accessibility of the d0Mo(=NR)₃ functional group
 AU Morrison, Donald L.; Wigley, David E.
 CS Carl S. Marvel Laboratories Chemistry, University Arizona, Tucson, AZ,
 85721, USA
 SO Journal of the Chemical Society, Chemical Communications (1995), (1),
 79-80
 CODEN: JCCCAT; ISSN: 0022-4936
 PB Royal Society of Chemistry
 DT Journal
 LA English
 AB The unprecedented tris(imido) complex of Mo, [Li(THF)₄][Mo(NAr)₃Cl] (Ar =
 C₆H₃Pri₂-2,6), is the kinetic product of the reaction between
 [Mo(NAr)₂Cl₂(THF)₂] and 2 equiv of LiNHAr in THF; [Li(THF)₄][Mo(NAr)₃Cl]
 and byproduct H₂NAr reaction further to form the thermodyn. product
 [Mo(NAr)₂(NHAr)₂].

L4 ANSWER 30 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:129640 CAPLUS
 DN 122:22464
 TI Novel bis(imido) complexes of molybdenum(VI): precursors to new alkene
 metathesis catalysts
 AU Bell, Andrew; Clegg, William; Dyer, Philip W.; Elsegood, Mark R. J.;
 Gibson, Vernon C.; Marshall, Edward L.
 CS Res. Cent., Hercules Inc., Wilmington, DE, 19808-1599, USA
 SO Journal of the Chemical Society, Chemical Communications (1994), (19),
 2247-8
 CODEN: JCCCAT; ISSN: 0022-4936
 DT Journal
 LA English
 AB Preparation of novel four- and six-coordinate mixed-imido complexes of Mo are
 described and the structures of [Mo(Nad)(NC₆F₅)Cl₂(dme)] (ad = adamantyl)
 and [Mo(Nad)(NC₆F₅)(CH₂CMe₂Ph)₂] are reported.

L4 ANSWER 31 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1994:691300 CAPLUS
 DN 121:291300
 TI Higher valent derivatives of the d-metal acids. 14. Diimido complexes
 [M(NR)₂(PMe₃)₂L] of tetravalent molybdenum and tungsten: structure,
 molecular dynamics, and activation of π -acidic ligands
 AU Radius, Udo; Sundermeyer, Joerg; Pritzkow, Hans
 CS Inst. Anorganische Chemie, Univ. Wuerzburg, Wuerzburg, D-97074, Germany
 SO Chemische Berichte (1994), 127(10), 1827-35
 CODEN: CHBEAM; ISSN: 0009-2940
 DT Journal
 LA German
 AB [M(NMes)₂Cl₂(dme)] (M = Mo, W; Mes = mesityl) or trans-
 [M(NMes)₂(PMe₃)₂Cl₂] are reduced by C₈K in the presence of PMe₃ to give
 diamagnetic d² complexes [Mo(NMes)₂(PMe₃)₃] (5) and [W(NMes)₂(PMe₃)₃] (6).
 At least one PMe₃ ligand in 5 and 6 is readily substituted by more
 π -acidic substrates such as ethene, ethyne, 2-butyne, and P(OEt)₃. The
 reaction with ethene leads to [Mo(NMes)₂(η^2 -C₂H₄)(PMe₃)₂] and
 [W(NMes)₂(η^2 -C₂H₄)(PMe₃)₂] (8). Also, [Mo(NMes)₂(η^2 -
 C₂Me₂)(PMe₃)₂], [W(NMes)₂(η^2 -C₂H₂)(PMe₃)₂], and
 [W(NMes)₂(PMe₃)[P(OEt)₃]₂] were synthesized from 5 or 6. The x-ray
 structure anal. of 8 reveals a trigonal-bipyramidal geometry about W with
 both arylimido groups perfectly lying in the equatorial mirror plane. The
 ethene ligand is occupying the 3rd equatorial position. The C₂ vector is
 oriented perpendicular to the WN₂ plane. Dynamic NMR studies are
 consistent with a *ttbp* geometry being also present in solution at the
 low-temperature limit. At higher temps. a rapid exchange of the PMe₃ ligands
 with noncoordinated phosphine according to a dissociative mechanism is
 observed

L4 ANSWER 32 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1994:409572 CAPLUS
 DN 121:9572
 TI Ligand variation in molybdenum alkylidene complexes of the type
 Mo(CHR)(NR')(OR')₂
 AU Oskam, John H.; Fox, Harold H.; Yap, Kimo B.; McConville, David H.;
 O'Dell, Richard; Lichtenstein, Bradley J.; Schrock, Richard R.
 CS Department of Chemistry 6-331, Massachusetts Institute of Technology,
 Cambridge, MA, 02139, USA
 SO Journal of Organometallic Chemistry (1993), 459(1-2), 185-98
 CODEN: JORCAI; ISSN: 0022-328X
 DT Journal
 LA English
 OS CASREACT 121:9572
 AB A variety of complexes of the type Mo(NR)₂Cl₂L₂ (R = 4-Br-2,6-iPr₂C₆H₂,
 4-CN-2,6-iPr₂C₆H₂, 3,5-Me₂C₆H₃, 2-iPrC₆H₄, 2-CF₃C₆H₄, 2-PhC₆H₄, and
 1-adamantyl; L = 1/2 DME or pyridine) have been synthesized by treating
 [NH₄]₂[Mo₂O₇] with four equivalent of RNH₂ in the presence of Me₃SiCl and
 Et₃N. They are readily alkylated by Grignard reagents to give complexes
 of the type Mo(NR)₂(CH₂R')₂ (R' = *t*Bu or PhMe₂C) from which alkylidene
 complexes of the type Mo(NR)(CHR')(OTf)₂(DME) are formed upon addition of
 triflic acid. Addition of various alkoxides to the triflate complexes yields
 four-coordinate complexes of the type Mo(NR)(CHR')(OR')₂ (OR' = OCM₃,
 OC₂H₅, O-1-adamantyl, OCHMe₂, OCM₂(CF₃), OCM₂(CF₃)₂, OC(CF₃)₃, and
 OC(CF₃)₂CF₂CF₂CF₃).

L4 ANSWER 33 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1993:234193 CAPLUS
 DN 118:234193
 TI Synthesis of five- and six-coordinate alkylidene complexes of the type
 Mo(CHR)(NAr)[OCMe(CF₃)₂]₂S_x and their use as living ROMP initiators or
 Wittig reagents
 AU Fox, Harold H.; Lee, Jin Kyu; Park, Lee Y.; Schrock, Richard R.
 CS Dep. Chem., Massachusetts Inst. Technol., Cambridge, MA, 02139, USA
 SO Organometallics (1993), 12(3), 759-68
 CODEN: ORGND7; ISSN: 0276-7333
 DT Journal
 LA English
 AB Addition of a slight excess of 4-methoxy-1-hexene to Mo(CHCMe₂Ph)(NAr)(ORF₆)

(1a) or $\text{Mo}(\text{CHCMe}_3)(\text{NAr})(\text{ORF}_6)_2$ (1b) in pentane ($\text{ORF}_6 = \text{OCMe}(\text{CF}_3)_2$) yielded crystalline, red-orange anti- $\text{Mo}[\text{CHCH}_2\text{CH}(\text{OMe})\text{CH}_2\text{CH}_3](\text{NAr})(\text{ORF}_6)_2$. A similar reaction was used to prepare the difunctional complex anti- $[(\text{ArN})(\text{RF}_6\text{O})_2\text{Mo}:\text{CHCH}_2\text{CH}(\text{OMe})]_2\text{C}_6\text{H}_4$ (3). Styrene reacts with 1a or 1b in DME over a period of 12 h to afford orange syn- $\text{Mo}(\text{CHPh})(\text{NAr})(\text{ORF}_6)_2(\text{DME})$ (4) in good yield. 4-(Dimethylamino)styrene and 2,4,6-trimethoxystyrene react analogously to yield dark red syn- $\text{Mo}(\text{CHC}_6\text{H}_4\text{NMe}_2\text{-4})(\text{NAr})(\text{ORF}_6)_2(\text{DME})$ (5) and red anti- $\text{Mo}[\text{CHC}_6\text{H}_2(\text{OMe})_3\text{-2,4,6}](\text{NAr})(\text{ORF}_6)_2(\text{DME})$. Complex 4 also can be synthesized from $\text{Mo}(\text{NAr})_2\text{Cl}_2(\text{DME})$ via $\text{Mo}(\text{NAr})_2(\text{CH}_2\text{Ph})_2$ and $\text{Mo}(\text{CHPh})(\text{NAr})(\text{OTf})_2(\text{DME})$. The reaction between 1 and 0.5 equiv of octatetraene in DME afforded syn- $(\text{DME})(\text{RF}_6\text{O})_2(\text{ArN})\text{Mo}(\text{CH})_6\text{Mo}(\text{NAr})(\text{ORF}_6)_2(\text{DME})$ (9a). A related complex, syn- $(\text{Et}_2\text{O})(\text{RF}_6\text{O})_2(\text{ArN})\text{Mo}(\text{CH})_6\text{Mo}(\text{NAr})(\text{ORF}_6)_2(\text{Et}_2\text{O})$ (9b), could be prepared directly in di-Et ether or by dissolving 9a in di-Et ether. anti- $(\text{THF})(\text{RF}_6\text{O})_2(\text{ArN})\text{Mo}(\text{CH})_6\text{Mo}(\text{NAr})(\text{ORF}_6)_2(\text{THF})$ (9c) was observed upon dissolving 9a in THF. Addition of 4 equiv of LiOBu-tert and 2 equiv of quinuclidine (quin) to 9a yields metallic green $(\text{quin})(\text{tert-BuO})_2(\text{ArN})\text{Mo}(\text{CH})_6\text{Mo}(\text{NAr})(\text{OBu-tert})_2(\text{quin})$ (9d). 1,4-Divinylbenzene reacts smoothly with 1a or 1b to give another conjugated difunctional alkylidene complex, 1,4- $[(\text{DME})(\text{RF}_6\text{O})_2(\text{ArN})\text{MoCH}]_2\text{C}_6\text{H}_4$ (10a). $\text{Mo}(\text{CH}_2)(\text{NAr})(\text{ORF}_6)_2(\text{DME})$ (11a) could be generated and observed by ^1H NMR upon adding an excess of ethylene to a solution of 1b in DME- d_{10} in a septum-sealed NMR tube. Addition of 2,2'-bipyridine (bpy) to 11a yielded isolable $\text{Mo}(\text{CH}_2)(\text{NAr})(\text{ORF}_6)_2(\text{bpy})$ (11b). 2,3-Bis(methoxycarbonyl)norbornadiene (100 equiv) could be polymerized in a living manner in DME using 1b, 4, 5, 9a, 9b, or 10a as the initiator. 2,3-Bis(trifluoromethyl)norbornadiene (100 equiv) was also polymerized in a living manner by 1a in DME. Addition of an excess of LiO-tert-Bu (8 equiv) to a solution of 3 in toluene, followed by 200 equiv of methyltetracyclododecene (MTD), gave low-polydispersity poly-MTD ($M_w/M_n = 1.03$) in 93% yield. Complexes 4, 5, 9a, 9b, and 10a react cleanly with pivalaldehyde or benzaldehyde in CD_2Cl_2 or DME. A combination of Wittig reactions was used to prepare the di-tert-butyl-capped polyenes $(\text{tert-Bu})(\text{CH}:\text{CH})_n(\text{Bu-tert})$ ($n = 4, 6, 8$). The techniques described here should expand the opportunities for making polymers via living ROMP reactions and, in particular, should allow one to introduce conjugated sequences with a known, fixed length into a variety of polymers and to attach functional groups to both ends of a polymer.

L4 ANSWER 34 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1991:536297 CAPLUS
 DN 115:136297
 TI Bis((2,6-diisopropylphenyl)imido) complexes of molybdenum(VI)
 AU Bryson, N.; Youinou, M. T.; Osborn, J. A.
 CS Lab. Chim. Met. Transition Catal., Univ. Louis Pasteur, Strasbourg, 67000, Fr.
 SO Organometallics (1991), 10(9), 3389-92
 CODEN: ORGND7; ISSN: 0276-7333
 DT Journal
 LA English
 OS CASREACT 115:136297
 AB The molybdenum(VI) complex $(\text{Ar}'\text{N})_2\text{MoCl}_2\cdot\text{THF}$ (I, $\text{Ar}' = 2,6\text{-diisopropylphenyl}$) was prepared by reaction of MoO_2Cl_2 with $\text{Ar}'\text{NCO}$. The preps. of $\text{Mo}(\text{NAr}')_2\text{Np}_2$, $\text{Mo}(\text{NAr}')_2\text{Mes}_2$, $\text{Mo}(\text{NAr}')_2\text{MesBr}$, $\text{Mo}(\text{NAr}')_2(\text{NET}_2)\text{Cl}$, and $\text{Mo}(\text{NAr}')_2(\text{NET}_2)_2$ ($\text{Np} = \text{neopentyl}$, $\text{Mes} = \text{mesityl}$) from I are described. In addition, the complex $\text{Mo}(\text{NAr}')_2(\text{NHAr}')_2$ has been synthesized and characterized crystallog.

L4 ANSWER 35 OF 35 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1990:235517 CAPLUS
 DN 112:235517
 TI Synthesis of molybdenum imido alkylidene complexes and some reactions involving acyclic olefins
 AU Schrock, Richard R.; Murdzek, John S.; Bazan, Gui C.; Robbins, Jennifer; DiMare, Marcello; O'Regan, Marie
 CS Dep. Chem., Massachusetts Inst. Technol., Cambridge, MA, 02139, USA
 SO Journal of the American Chemical Society (1990), 112(10), 3875-86
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English

OS CASREACT 112:235517

AB The reaction between $\text{Mo}(\text{CCMe}_3)(\text{dme})\text{Cl}_3$ ($\text{dme} = 1,2\text{-dimethoxyethane}$) and Me_3SiNHAr ($\text{Ar} = 2,6\text{-diisopropylphenyl}$ throughout this abstract) yields $\text{Mo}(\text{CCMe}_3)(\text{NHAr})\text{Cl}_2(\text{dme})$ (I), which upon treatment with a catalytic amount of NEt_3 is transformed into $\text{Mo}(\text{CHCMe}_3)(\text{NHAr})\text{Cl}_2(\text{dme})$ (II). Complexes of the type $\text{Mo}(\text{CHCMe}_3)(\text{NAr})(\text{OR})_2$ [$\text{OR} = \text{OCMe}(\text{CF}_3)_2$, $\text{OCMe}_2(\text{CF}_3)$, OCMe_3 , OAr] have been prepared from II. Complexes of the type $\text{Mo}(\text{CCMe}_3)(\text{NHAr})(\text{OR})_2$ ($\text{OR} = \text{OCMe}(\text{CF}_3)_2$, OAr) have been prepared from I, but they cannot be transformed into $\text{Mo}(\text{CHCMe}_3)(\text{NAr})(\text{OR})_2$ complexes. A precursor to imido alkylidene complexes that is related to II has been prepared by the sequence $\text{MoO}_2 \rightarrow \text{MoO}_2\text{Cl}_2 \rightarrow \text{Mo}(\text{NAr})_2\text{Cl}_2 \rightarrow \text{Mo}(\text{NAr})_2(\text{CH}_2\text{R}')_2 \rightarrow \text{Mo}(\text{CHR}')(\text{NAr})(\text{OTf})_2(\text{dme})$ ($\text{R}' = \text{CMe}_3$, CMe_2Ph ; $\text{OTf} = \text{OSO}_2\text{CF}_3$). The crystal structure of $\text{Mo}(\text{CHCMe}_3)(\text{NAr})(\text{OTf})_2(\text{dme})$ was determined. It is a pseudooctahedral species in which the imido and alkylidene ligands are cis to one another, the triflate ligands are mutually trans, and the CMe_3 group points toward the imido ligand (syn orientation). Neophylidene complexes, $\text{Mo}(\text{CHCMe}_2\text{Ph})(\text{NAr})(\text{OR})_2$ ($\text{OR} = \text{OCMe}_3$, OAr , $2\text{-Me}_3\text{CC}_6\text{H}_4\text{O}$), have been prepared from $\text{Mo}(\text{CHCMe}_2\text{Ph})(\text{NAr})(\text{triflate})_2(\text{dme})$. Activity for the metathesis of cis-2-pentene by $\text{Mo}(\text{CHR}')(\text{NAr})(\text{OR})_2$ complexes roughly correlates with the electron-withdrawing ability of OR, being rapid when $\text{OR} = \text{OCMe}(\text{CF}_3)_2$ and slow to negligible when $\text{OR} = \text{OCMe}_3$. In several cases it is clear from proton NMR studies that the alkylidene ligand can rotate on the NMR time scale. $\text{Mo}[\text{CH}(\text{SiMe}_3)\text{CH}(\text{SiMe}_3)\text{CH}_2](\text{NAr})[\text{OCMe}_2(\text{CF}_3)]_2$ is found to be .apprx.3 orders of magnitude less stable than the analogous W complex. Trigonal-bipyramidal $\text{Mo}(\text{CH}_2\text{CH}_2\text{CH}_2)(\text{NAr})[\text{OCMe}(\text{CF}_3)_2]_2$ can be prepared at 25° in high yield, but it decomps. over a period of 12 h. Instability of $\text{OCMe}(\text{CF}_3)_2$ metallacyclobutane complexes has been traced to reduction by β -hydride rearrangement to give an olefin. In one case a complex containing the olefin product, $\text{Mo}(\text{NAr})(\text{Me}_3\text{SiCH:CH}_2)[\text{OCMe}(\text{CF}_3)_2]_2$, was isolated.

10/691,328

(FILE 'HOME' ENTERED AT 12:46:24 ON 06 APR 2006)

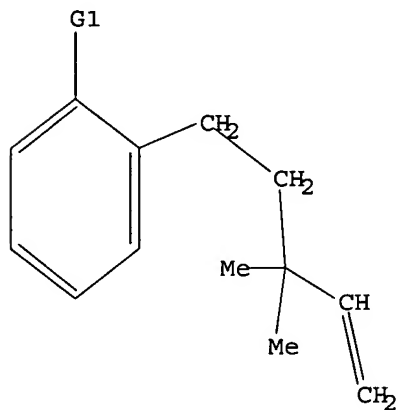
FILE 'REGISTRY' ENTERED AT 12:46:32 ON 06 APR 2006

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 NH2, NO2

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SEARCH INITIATED 12:46:52 FILE 'REGISTRY'

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0 ANSWERS

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BATCH **COMPLETE**

PROJECTED ITERATIONS: 44 TO 476

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 12:46:57 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 251 TO ITERATE

100.0% PROCESSED 251 ITERATIONS

2 ANSWERS

SEARCH TIME: 00.00.01

L3 2 SEA SSS FUL L1

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=> s l3
L4 2 L3

=> d 1-2 bib abs

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:409207 CAPLUS

DN 142:464178

TI Imido-tethered carbenes of molybdenum for ring-opening metathesis polymerization and ring-closing metathesis

IN Odom, Aaron L.; Ciszewski, James T.

PA Board of Trustees of Michigan State University, USA

SO U.S. Pat. Appl. Publ., 20 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005101475	A1	20050512	US 2003-691328	20031022
	WO 2005086622	A2	20050922	WO 2004-US34410	20041019
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2003-691328	A	20031022		

OS MARPAT 142:464178

AB Compds. and processes for catalytic ring-opening cyclooligomerization metathesis and ring-closing metathesis of olefins are described. The catalytic compound is Mo or W complex which comprises an imido ligand (N-R) bound to the M to provide an M:NR site, an M:C reaction site, where the C of the M:C reaction site is tethered to the R of the imido ligand via a C or C and heteroatom (N,O,S) chain containing 1-12 C atoms to form a ring structure, and 2-4 ligands (R') bound to the M to provide 2-4 MR' sites. The MR' sites include each of the oxygens of a dialkoxide ligand or each of the nitrogens of an n1-pyrrolyl ligand bound to the M.

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:862661 CAPLUS

DN 140:321469

TI Synthesis and structure of an imido-tethered Schrock carbene of molybdenum

AU Ciszewski, James T.; Xie, Baohan; Cao, Changsheng; Odom, Aaron L.

CS Department of Chemistry, Michigan State University, East Lansing, MI, USA

SO Dalton Transactions (2003), (22), 4226-4227

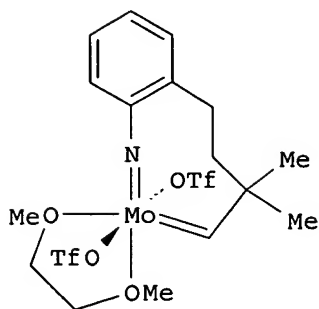
CODEN: DTARAF; ISSN: 1477-9226

PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 140:321469
GI



I

AB An 8-membered molybdenum azametallacycle I, where a Mo:C bond and a Mo:N bond are linked, incorporating two triflate co-ligands has been synthesized and structurally characterized.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
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